

Application Serial No. 09/810,559
Attorney Docket No. 110275.4500-US2

PATENT

REMARKS

In the Office Action, the Examiner noted that claims 1-65 are pending in the application, and that claims 1-65 are rejected.

By this Amendment, claims 1-65 have been cancelled, and claims 66-130 have been added. Therefore, claims 66-130 are pending in the application. The Examiner's rejections are traversed below.

Objection to the Drawings

The drawings are objected to as not including reference indicators from the specification, and including reference indicators that are not described in the specification. The specification has been amended to correct this informality. Withdrawal of this objection is respectfully requested.

Rejection Under 35 U.S.C. Section 103

Claims 1-65 stand rejected under 35 U.S.C. Section 103 as being unpatentable over what the Examiner asserts is admitted prior art, in view of Coskrey U.S. Patent 6,336,171 and/or Choquier et al. U.S. Patent 5,951,694. Applicant respectfully disagrees.

First, Applicant disagrees with the Examiner's characterization of "admitted" prior art. There is no admitted prior art in the present application. Rather, the present application cites in the background art section U.S. Patent 5,819,172. Applicant is seasonably traversing the Examiner's indication of admitted prior art. This patent is clearly unrelated to the presently claimed invention as described in the specification. Applicant requests the Examiner to cite portions of the prior art 5,951,694 to support the rejection, or withdraw the rejection. Alternatively, if this information is in the personal knowledge of the Examiner, Applicant requests the Examiner to provide an affidavit under 37 C.F.R. Section 1.104(d)(2)

Application Serial No. 09/810,559
Attorney Docket No. 110275.4500-US2

PATENT

detailing the reasons or a prior art reference. In the absence of either, Applicant requests the Examiner to withdraw the rejection.

In addition, Applicant respectfully submits that the present application makes clear that prior art 5,819,172 does not relate to the present application. For example, the specification recites:

Prior art FIGs. 1-3 [U.S. Patent 5,819,172], however, do not generally relate to, for example, providing an integrated or combination real time and polled electronic messaging system, method and/or a computer readable medium storing computer-executable instructions for enabling e-mail messages and/or other data messages and/or services to be transmitted and/or received via a wireless communications device on either a real time and/or polled basis.

The specification further states in connection with one or alternative features of the present invention:

We have determined that introducing a POP3 and IMAP service within a real time delivery scheme, therefore, would advantageously allow users to send and/or receive both polled and/or real time messages.

We have also determined that a need exists for an integrated wireless communications system that allows users to send and/or receive messages on a real time and/or near real time basis via an e-mail or other data message account associated with a wireless communications device, while also allowing users to utilize the wireless communications device to check messages stored within, for example, a separate (POP or IMAP) e-mail or data message account associated with, for example, a personal or corporate e-mail account.

The present invention also advantageously and optionally allows users to utilize the wireless communications device to check messages stored within, for example, a separate POP or IMAP e-mail or data account.

The agent gateways and/or messenger gateways thus allow a single user to hold more than one e-mail account, and access each of those accounts via a single wireless device.

That is, the user can set filters associated with polling of the agent gateway in a manner such that he does not receive any messages therefrom unless the user, for example, manually queries an agent gateway. Alternatively, the user may set a filter

Application Serial No. 09/810,559
Attorney Docket No. 1102/5.4500-US2

PATENT

such that the wireless device automatically polls an agent gateway at a particular time or times during the day (e.g., 9:00 AM and/or 5:00 PM and/or every 30 minutes). If the user sets the filters such that he must manually poll an agent gateway to receive messages therefrom, if he is in a meeting then he knows that any messages he receives on the wireless device are coming via a messenger gateway (e.g., the message has an address of the form <username>@2way.net), and not something that was sent to his POP and/or IMAP desktop e-mail or other message account that has been forwarded to him. Thus, a user can provide his <username>@2way.net or other predefined account to people, for example, to whom he tells to not send him an e-mail at this address unless you really need to contact me for something very urgent.

The Examiner's citation of Applicant's specification as admitted prior art is traversed. In addition, Applicant disagrees with the Examiner that the purported admitted prior art shows "substantial features" of the invention. To the contrary, Applicant disagrees as described herein.

In addition, Applicant respectfully submits that U.S. Patent 5,819,172 is clearly different from the agent/messenger invention. That is, U.S. Patent 5,819,172 does not, for example, provide the ability to receive messages on a polled and real-time basis in accordance with at least one embodiment of the invention.

U.S. Patent 5,819,172 is also not capable of providing more than one e-mail account, and permitting a wireless device to access more than one account from other side. For example, the invention includes the features of: first and second gateways transmitting and receiving signals on a real-time and polled basis, respectively; scheduler - device action manager - download combination; determining whether to transmit signals in real-time or on a polled basis, and the like. Contrary to the Examiner's assertions, neither the "admitted prior art" nor U.S. Patent 5,819,172 disclose these features of the present invention, or other features of the present invention.

Further, the Applicant notes upon review of the corresponding international patent application files that the International Patent Examiner has already considered the agent/messenger invention patentable over the prior art, including U.S. Patent 5,819,172. The Examiner has provided no motivation or suggestion from the prior art to support a prima facie case of obviousness.

Application Serial No. 09/810,559
Attorney Docket No. 110275.4500-US2

PATENT

Applicant has further amended the claims to provide the appropriate scope of protection that Applicant is seeking, and to make express what Applicant considers to be inherently claimed.

With respect to Claim 66, without conceding that the cited prior art discloses any of the elements of the present invention, Applicant respectfully submits that the prior art does not show or suggest the combination of limitations in claim 66, when claim 66 is interpreted as a whole.

For example, claim 66 recites the following, in combination, a "communications system for transmitting and/or receiving signals with at least two communication devices via a real time and/or a polled transmission." The communications system includes "at least one first gateway responsively communicable with at least a first communications device and at least a second communications device, wherein said at least one first gateway at least one of transmits and receives signals on a real time basis with the at least one first wireless communications device and the at least one second communications device." In addition, the communication includes "at least one second gateway responsively communicable with the at least one first wireless communications device and at least a third communications device, wherein said at least one second gateway at least one of transmits and receives signals on a polled basis with the at least one first wireless communications device and the at least one third communications device, said at least one first gateway and said at least one second gateway are operatively connectable to each other to perform the real time and the polled transmission based upon predetermined criteria." Further, the communications system comprises an integrated wireless communications system providing the sending and receiving of messages on the real time and the polled transmission, while also allowing users to utilize the wireless communications device to check messages stored within a separate at least one of POP and IMAP data message account."

Accordingly, Applicant submits that the combination of limitations recited in claim 1 patentably distinguishes over the prior art cited by the Examiner. Withdrawal of this rejection is respectfully requested.

Application Serial No. 09/810,559
Attorney Docket No. 110275.4500-US2

PATENT

In addition, Applicant respectfully submits that claims 67-130 also patentably distinguish over the prior art for the specific combination of limitations recited in each of the claims, when each claim is interpreted as a whole. Withdrawal of the rejection of these claims is respectfully requested.

With respect to specific statements submitted by the Examiner characterizing the prior art, Applicant respectfully disagrees with the Examiner. For example, Applicant disagrees that gateways being connected to each other was well known in the context of the present invention. In the present invention, the gateways are utilized for separate transmission processes. The Examiner has provided no motivation or suggestion from the prior art to support a prima facie case of obviousness.

With respect to the Examiner's statement regarding implicit teachings in the prior art, see for example, claims 19, 20, 36, 37, 64, 65 (which may apply to the newly submitted claims), Applicant disagrees with the Examiner that this is an appropriate consideration for an obviousness rejection. Something that is implicit, is not necessarily obvious. Accordingly, this information must be within the personal knowledge of the Examiner, and therefore, Applicant requests the Examiner to provide an affidavit under 37 C.F.R. Section 1.104(d)(2) detailing the reasons or a prior art reference. In the absence of either, Applicant requests the Examiner to withdraw the rejection.

With respect to the Examiner's statement that load balancing was well known in the art, Applicant again disagrees in the context of the present invention. Applicant requests the Examiner to provide an affidavit under 37 C.F.R. Section 1.104(d)(2) detailing the reasons or a prior art reference. In the absence of either, Applicant requests the Examiner to withdraw the rejection.

Application Serial No. 09/810,559
Attorney Docket No. 110275.4500-US2

PATENT

CONCLUSION

Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited prior art shows any of the elements recited in the claims. However, Applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples Applicants have described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, Applicants assert that it is the combination of elements recited in each of the claims, when each claim is interpreted as a whole, which is patentable. Applicants have emphasized certain features in the claims as clearly not present in the cited references, as discussed above. However, Applicants do not concede that other features in the claims are found in the prior art. Rather, for the sake of simplicity, Applicants are providing examples of why the claims described above are distinguishable over the cited prior art.

Applicants wish to clarify for the record, if necessary, that the claims have been amended to expedite prosecution. Moreover, Applicants reserve the right to pursue the original subject matter recited in the present claims in a continuation application.

Any narrowing amendments made to the claims in the present Amendment are not to be construed as a surrender of any subject matter between the original claims and the present claims; rather merely Applicants' best attempt at providing one or more definitions of what the Applicants believe to be suitable patent protection. In addition, the present claims provide the intended scope of protection that Applicants are seeking for this application. Therefore, no estoppel should be presumed, and Applicants' claims are intended to include a scope of protection under the Doctrine of Equivalents.

Further, Applicants hereby retract any arguments and/or statements made during prosecution that were rejected by the Examiner during prosecution and/or that were

Application Serial No. 09/810,559
Attorney Docket No. 110275.4500-US2

PATENT

unnecessary to obtain allowance, and only maintains the arguments that persuaded the Examiner with respect to the allowability of the patent claims, as one of ordinary skill would understand from a review of the prosecution history. That is, Applicants specifically retract statements that one of ordinary skill would recognize from reading the file history were not necessary, not used and/or were rejected by the Examiner in allowing the patent application.

For all the reasons advanced above, Applicants respectfully submit that the rejections have been overcome and should be withdrawn.

For all the reasons advanced above, Applicants respectfully submit that the Application is in condition for allowance, and that such action is earnestly solicited.

Application Serial No. 09/810,539
Attorney Docket No. 110275.4500-US2

PATENT

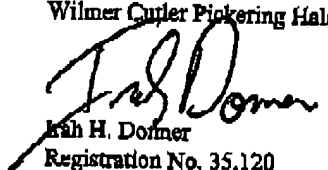
AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees, which may be required for this Amendment, or credit any overpayment to Deposit Account No. 08-0219

In the event that an Extension of Time is required, or which may be required in addition to that requested in a petition for an Extension of Time, the Commissioner is requested to grant a petition for that Extension of Time which is required to make this response timely and is hereby authorized to charge any fee for such an Extension of Time or credit any overpayment for an Extension of Time to Deposit Account No. 08-0219.

Respectfully submitted,

Wilmer Cutler Pickering Hale and Dorr LLP


Ira H. Dorr
Registration No. 35,120

399 Park Avenue
New York, NY 10022
TEL (212) 230-8887
FAX (212) 230-8888

Date: 8/4/05

Appendix A

(Pages 2-13 of the specification marked to show changes)

110275-4500 US1

Replacement Page 2

PATENT

communications device on either a real time and/or
polled basis.

Background Description

Figures 1-3 show a prior art radio frequency (RF) transmission system 100, as disclosed in U.S. Patent No. 5,819,172, incorporated herein by reference, for transmitting information from one of a plurality of originating processors A-N to at least one of a plurality of destination processors (A-N) which may be transported during operation. The system 100 includes at least one gateway switch ~~150~~ 14 that stores information received from one of the at least one originating processor prior to transmission of the information to the at least one destination processor; a RF information transmission network ~~130~~ 302 for transmitting stored information received from one of the at least one gateway switch 150 by RF transmission to at least one destination processor; and at least one interface switch ~~163~~ 304 that connects a gateway switch 150 to the RF transmission network ~~100~~ 302 and transmits stored information received from one

US1DOCS 5012554v1

110275-4500 US1

Replacement Page 3

PATENT

of the at least one gateway switch 140 14 to the RF information transmission network 100 130.

The information is transmitted to a receiving interface switch by the electronic mail system in response to an address of the receiving interface switch which has been added to the information originated by the originating processor by either the originating processor or gateway switch 14. The information is transmitted from the receiving interface switch to the RF information transmission network 130 302 with an address of the destination processor to receive the information which has been added by either the originating processor, a gateway switch or the receiving interface switch.

More particularly, FIG. 2 illustrates a block diagram of the connection between a plurality of gateway switches with mailboxes 150 14 in different electronic mail systems to the RF information transmission network 160 302. Multiple gateway switches with mailboxes 150 14 from a single electronic mail system 1-N may be connected to each interface switch 162 304 instead of the connection of a single gateway switch with a mailbox to a single interface switch as illustrated. A plurality of interface switches 162 304 connect information transmitted from at least

USIDOC8 012554v1

110275-4500 US1

Replacement Page 4

PATENT

one electronic mail system as illustrated in FIG. 1. Optionally, a plurality of electronic mail systems 1-N are connected to a data input port of the RF information transmission system which is preferably hub switch 116. The dotted line communication paths 163 306 illustrate optional information transmissions in which information from a plurality of different electronic mail systems is concentrated at a single interface switch 304. The dotted line communication paths 162 306, 307 illustrate connections to additional gateway switches with mailboxes 150 14 within electronic mail systems 1-N.

The interface switches 162 304 function as a security check to determine that information transmissions originating from a gateway switch with mailbox 150 14 represent transmissions which should be coupled to a hub switch 116 of the RF information transmission network 160 302. The security check is performed by the interface switch 162 304 comparing the identification number of the RF receiver 119 which has been added by either an originating processor A-N or a gateway switch with mailboxes 150 14 with permissible identification numbers or the interface switch performing the addition of the identification number.

US1100035012734v1

110275-4500 US1

Replacement Page 5

PATENT

The interface switch 162 304 also removes information added by the electronic mail system 1-N to the information originated by the originating processor A-N from the stored information received from one of the gateway switches 14, and adds information used by the RF information transmission network 130 302 during transmission of the information originated at the originating processor to a RF receiver 119 in the RF information transmission network 130 302 which receives the information and transfers it to the destination processor A-N. Additionally, the interface switch 162 304 encodes data, which is required to format the display of the cathode ray tube (CRT) of the destination processor for the electronic mail system to which the destination processor is connected, in the form of a character or characters which are decoded by either the RF receiver 119 or the destination processor A-N. This information is added in decoded form back to the information which is processed by the destination processor with a format of the electronic mail system to which the destination processor A-N is connected. The interface switches 162 304 also function to store information which has been stored by at least

US1DOCS 0012554v1

110275-4500 US1

Replacement Page 6

PATENT

one gateway switch 150 14 that is received from a plurality of originating processors, and assemble the information from a plurality of originating processors into a packet having a predetermined format and transmit the packet to the hub switch 116 within the RF information transmission network 160 302. The hub switch is the preferable node in the RF information transmission network to which communications from the gateway switches 150 14 should be transmitted as a consequence of it having jurisdiction over both local access and transport area (LATA) switches 150 14 and the local switches 112 in the RF information transmission network, which results in lesser network overhead.

The hub switch 116 receives the packet from the receiving interface switch 162 304 and disassembles the packet into information from the plurality of originating processors. The originating processors are either within a single electronic mail system such as system 1, or from a plurality of electronic mail systems, such as systems 1-N, or from outside of any electronic mail system from at least one additional processor 312 which is connected directly to interface switch 162 302 to originate information to be transmitted to a destination processor A-N in an

US1DOCS 012554v1

110275-4500 US1

Replacement Page 7

PATENT

electronic mail system as described below. The RF information transmission network 130 302 transmits the disassembled information from the hub switch 116, including the identification number of the RF receiver 119 transferring information, to the destination processor A-N to a local switch 112 storing the file identified by the identification number and any destination of the RF receiver in the RF information transmission network to which the information and identification number is to be transmitted by the RF information transmission network, and adds any destination of the RF receiver to the information. The RF information transmission network, in response to any added destination, transmits the information and identification number to the destination for RF broadcast to the RF receiver 119 for transfer to the destination processor A-N.

The information is transmitted to a receiving interface switch 162 304 from one or more gateway switches 150 14 by one or more electronic mail systems 1-N in response to an address of the receiving interface switch which has been added to the information originated by the originating processor by either the originating processor or gateway

US1DOCS 012554v1

110275-4500 US1

Replacement Page 8

PATENT

switch. The information is transmitted from the receiving interface switch 162 304 to the RF information transmission network with an address of the destination processor, such as a name of a user of the destination processor A-N, to receive the information which has been added by either the originating processor A-N, a gateway switch 150 14 or the receiving interface switch 304.

Preferably, the address of the receiving interface switch is a code word, such as "TF-MOBOX", which is recognized throughout the electronic mail system when appended to information as directing the information to be transmitted to the interface switch 304. The address of the destination processor is preferably the identification number of the RF receiver 119 within the RF information transmission network 160 302. The address of the receiving interface switch may be added to the information originated by the originating processor, by a gateway switch 150 14 or by the originating processor A-N. The address of the receiving interface switch 162 304 may be added to the information by matching an identification of the destination processor A-N which may be the name of the individual utilizing the processor or some other information to add an address of an interface switch

USIDOC5 5012354w1

110275-4500 US1

Replacement Page 9

PATENT

such as the aforementioned "TF-MOBOX" stored with the matched identification of the destination processor to the information as the address of the receiving interface switch.

Alternatively, the originating processor may be used to add the address of the receiving interface switch 150 by inputting the address of the receiving interface switch (TF-MOBOX) along with an identification of the destination processor A-N (name of recipient using the processor).

The originating processor A-N may also add the address of the receiving interface switch 162 304 by matching an identification of the destination processor (name of the user of the processor) with a stored identification of a destination processor and adding an address of the interface switch (TF-MOBOX) stored with the matched identification of the destination processor to the information as the address of the receiving interface switch.

The identification number may be added to the information originated by the originating processor or, alternatively, maybe added by the originating processor by matching an identification of the destination processor (the name of the user of the processor) with a stored identification of a

US1DOCS 012554-1

110275-4500 US1

Replacement Page 10

PATENT

destination processor (the authorized user of the destination processor) and adding an identification number stored with the matched identification of the destination processor to the information as the identification number of the RF receiver 119. Alternatively, the aforementioned matching process may be performed by either the gateway switch 150 14 or the interface switch 304. The additional processors 312 originates information from outside of any electronic mail system.

Processors 312 provide an address of at least one destination processor in an electronic mail system, such as the name of the user, to receive information transmitted by the RF information transmission system 160 302, or an identification number of the RF receiver 119 receiving information and transferring the information to the destination processor. The interface switch 160 304 which receives the information from each processor 312 adds information used by the RF information transmission network 120 302 during transmission of the information to the RF receiver 119 receiving the information in the same manner as described above with respect to the interface switch 304.

UBIDOC5 5012554-1

110275-4500 US1

Replacement Page 11

PATENT

Processors 312 are only required to have a telephone modem and support programming to format information for RF transmission to a destination processor A-N within any one of one or more electronic mail systems 1-N. The processors 312 are not required to have the necessary electronic mail system software present in originating processors A-N or inter-connections with an electronic mail system. As a result of the connection to the interface switch 304, information originating from the additional processors 312 may be transmitted by RF transmission to a destination processor A-N within any one or a plurality of electronic mail systems with the user of the processor 312, the processor 312 or the interface switch 162 304 only having to supply an identification number of the receiver 119 to input information into the RF information transmission system 130 302 for RF transmission to a destination processor.

The difference between originating information by one of the additional processors 312 outside of any electronic mail system and originating information by one of the processors within one of the electronic mail systems is that the direct

US1DOCS 01235491

110275-4500 US1

Replacement Page 12

PATENT

connection of the additional processor to the interface switch 162 304 eliminates the requirement for the adding of an address of the interface switch 162 304 which is required by the electronic mail systems to forward the information to the interface switch where necessary formatting of the information to be compatible with the RF information transmission system is performed. The interface switch 162 304 packetizes information originating from the additional processors 312 in the same manner as described above with respect to information originating from within an electronic mail system.

Information from within an electronic mail system and originating from additional processors 312 outside of the electronic mail system may be formatted into the same packets which are forwarded to the hub switch 116. Additionally, interface switch 162 304 may be connected only to the additional processors 312 to provide an interface only for processors outside of any electronic mail system to destination processors A-N within one or more electronic mail systems 1-N. The only information which is necessary to be inputted by the additional processors 312 is the address of the destination

USIDOC501256w1

110275-4500 US1

Replacement Page 13

PATENT

processor (user of the processor). The addition of the identification number of the receiver 119 may be added by matching of an identification of the destination processor with stored destination processors within the additional processor 312, or the interface switch 162 304 with an identification number of the receiver 119 stored with an identification of a destination processor A-N used as an identification of the destination processor upon a match having been made.

Prior art FIGs. 1-3, however, do not generally relate to, for example, providing an integrated or combination real time and polled electronic messaging system, method and/or a computer readable medium storing computer-executable instructions for enabling e-mail messages and/or other data messages and/or services to be transmitted and/or received via a wireless communications device on either a real time and/or polled basis

In recent years, technological advance and consumer demand together have made wireless messaging and related services (e.g., eLinkSM provided by Motient Corporation, Reston, VA) increasingly popular. These services allow users

US1POCS 012541

Appendix B

(Clean copy of Pages 2-13 of the specification)

110275-4500 US1

Replacement Page 2

PATENT

communications device on either a real time and/or polled basis.

Background Description

Figures 1-3 show a prior art radio frequency (RF) transmission system 100, as disclosed in U.S. Patent No. 5,819,172, incorporated herein by reference, for transmitting information from one of a plurality of originating processors A-N to at least one of a plurality of destination processors (A-N) which may be transported during operation. The system 100 includes at least one gateway switch 14 that stores information received from one of the at least one originating processor prior to transmission of the information to the at least one destination processor; a RF information transmission network 302 for transmitting stored information received from one of the at least one gateway switch 150 by RF transmission to at least one destination processor; and at least one interface switch 304 that connects a gateway switch 150 to the RF transmission network 302 and transmits stored information received from one

USIDOC55014217-1

110275-2500 US1

Replacement Page 3

PATENT

of the at least one gateway switch 14 to the RF information transmission network 130.

The information is transmitted to a receiving interface switch by the electronic mail system in response to an address of the receiving interface switch which has been added to the information originated by the originating processor by either the originating processor or gateway switch 14. The information is transmitted from the receiving interface switch to the RF information transmission network 302 with an address of the destination processor to receive the information which has been added by either the originating processor, a gateway switch or the receiving interface switch.

More particularly, FIG. 2 illustrates a block diagram of the connection between a plurality of gateway switches with mailboxes 14 in different electronic mail systems to the RF information transmission network 302. Multiple gateway switches with mailboxes 14 from a single electronic mail system 1-N may be connected to each interface switch 304 instead of the connection of a single gateway switch with a mailbox to a single interface switch as illustrated. A plurality of interface switches 304 connect information transmitted from at least one electronic mail system as

USIDOC5 014217-1

110875-2500 US1

Replacement Page 4

PATENT

illustrated in FIG. 1. Optionally, a plurality of electronic mail systems 1-N are connected to a data input port of the RF information transmission system which is preferably hub switch 116. The dotted line communication paths 306 illustrate optional information transmissions in which information from a plurality of different electronic mail systems is concentrated at a single interface switch 304. The dotted line communication paths 306, 307 illustrate connections to additional gateway switches with mailboxes 14 within electronic mail systems 1-N.

The interface switches 304 function as a security check to determine that information transmissions originating from a gateway switch with mailbox 14 represent transmissions which should be coupled to a hub switch 116 of the RF information transmission network 302. The security check is performed by the interface switch 304 comparing the identification number of the RF receiver 119 which has been added by either an originating processor A-N or a gateway switch with mailboxes 14 with permissible identification numbers or the interface switch performing the addition of the identification number. The interface switch 304 also removes information added by the electronic mail system 1-N to the

US100875-2500

110275-2500 US1

Replacement Page 5

PATENT

information originated by the originating processor A-N from the stored information received from one of the gateway switches 14, and adds information used by the RF information transmission network 302 during transmission of the information originated at the originating processor to a RF receiver 119 in the RF information transmission network 302 which receives the information and transfers it to the destination processor A-N. Additionally, the interface switch 304 encodes data, which is required to format the display of the cathode ray tube (CRT) of the destination processor for the electronic mail system to which the destination processor is connected, in the form of a character or characters which are decoded by either the RF receiver 119 or the destination processor A-N. This information is added in decoded form back to the information which is processed by the destination processor with a format of the electronic mail system to which the destination processor A-N is connected.

The interface switches 304 also function to store information which has been stored by at least one gateway switch 14 that is received from a plurality of originating processors, and assemble the information from a plurality of originating processors

US1DOCS 5014217v1

110275-2500 US1

Replacement Page 6

PATENT

into a packet having a predetermined format and transmit the packet to the hub switch 116 within the RF information transmission network 302. The hub switch is the preferable node in the RF information transmission network to which communications from the gateway switches 14 should be transmitted as a consequence of it having jurisdiction over both local access and transport area (LATA) switches 14 and the local switches 112 in the RF information transmission network, which results in lesser network overhead.

The hub switch 116 receives the packet from the receiving interface switch 304 and disassembles the packet into information from the plurality of originating processors. The originating processors are either within a single electronic mail system such as system 1, or from a plurality of electronic mail systems, such as systems 1-N, or from outside of any electronic mail system from at least one additional processor 312 which is connected directly to interface switch 302 to originate information to be transmitted to a destination processor A-N in an electronic mail system as described below. The RF information transmission network 302 transmits the disassembled information from the hub switch 116, including the identification number of the RF receiver

US1DOCS 5014217v1

110275-2500 US1

Replacement Page 7

PATENT

119 transferring information, to the destination processor A-N to a local switch 112 storing the file identified by the identification number and any destination of the RF receiver in the RF information transmission network to which the information and identification number is to be transmitted by the RF information transmission network, and adds any destination of the RF receiver to the information. The RF information transmission network, in response to any added destination, transmits the information and identification number to the destination for RF broadcast to the RF receiver 119 for transfer to the destination processor A-N.

The information is transmitted to a receiving interface switch 304 from one or more gateway switches 14 by one or more electronic mail systems 1-N in response to an address of the receiving interface switch which has been added to the information originated by the originating processor by either the originating processor or gateway switch. The information is transmitted from the receiving interface switch 304 to the RF information transmission network with an address of the destination processor, such as a name of a user of the

USIDOC8 014217M

110275-2500 US1

Replacement Page 8

PATENT

destination processor A-N, to receive the information which has been added by either the originating processor A-N, a gateway switch 14 or the receiving interface switch 304.

Preferably, the address of the receiving interface switch is a code word, such as "TF-MOBOX", which is recognized throughout the electronic mail system when appended to information as directing the information to be transmitted to the interface switch 304. The address of the destination processor is preferably the identification number of the RF receiver 119 within the RF information transmission network 302. The address of the receiving interface switch may be added to the information originated by the originating processor, by a gateway switch 14 or by the originating processor A-N. The address of the receiving interface switch 304 may be added to the information by matching an identification of the destination processor A-N which may be the name of the individual utilizing the processor or some other information to add an address of an interface switch such as the aforementioned "TF-MOBOX" stored with the matched identification of the destination processor to the information as the address of the receiving interface switch.

USIDOC5014217v1

110275-2500 US1

Replacement Page 9

PATENT

Alternatively, the originating processor may be used to add the address of the receiving interface switch 150 by inputting the address of the receiving interface switch (TF-MOBOX) along with an identification of the destination processor A-N (name of recipient using the processor).

The originating processor A-N may also add the address of the receiving interface switch 304 by matching an identification of the destination processor (name of the user of the processor) with a stored identification of a destination processor and adding an address of the interface switch (TF-MOBOX) stored with the matched identification of the destination processor to the information as the address of the receiving interface switch.

The identification number may be added to the information originated by the originating processor or, alternatively, maybe added by the originating processor by matching an identification of the destination processor (the name of the user of the processor) with a stored identification of a destination processor (the authorized user of the destination processor) and adding an identification number stored with the matched identification of the destination processor to the information as the

US1DOCS 5014217v1

110275-2500 US1

Replacement Page 10

PATENT

identification number of the RF receiver 119.

Alternatively, the aforementioned matching process may be performed by either the gateway switch 14 or the interface switch 304. The additional processors 312 originates information from outside of any electronic mail system.

Processors 312 provide an address of at least one destination processor in an electronic mail system, such as the name of the user, to receive information transmitted by the RF information transmission system 302, or an identification number of the RF receiver 119 receiving information and transferring the information to the destination processor. The interface switch 304 which receives the information from each processor 312 adds information used by the RF information transmission network 302 during transmission of the information to the RF receiver 119 receiving the information in the same manner as described above with respect to the interface switch 304.

Processors 312 are only required to have a telephone modem and support programming to format information for RF transmission to a destination processor A-N within any one of one or more electronic

USDOC 501217v1

110275-2500 US1

Replacement Page 11

PATENT

mail systems 1-N. The processors 312 are not required to have the necessary electronic mail system software present in originating processors A-N or inter-connections with an electronic mail system. As a result of the connection to the interface switch 304, information originating from the additional processors 312 may be transmitted by RF transmission to a destination processor A-N within any one or a plurality of electronic mail systems with the user of the processor 312, the processor 312 or the interface switch 304 only having to supply an identification number of the receiver 119 to input information into the RF information transmission system 302 for RF transmission to a destination processor.

The difference between originating information by one of the additional processors 312 outside of any electronic mail system and originating information by one of the processors within one of the electronic mail systems is that the direct

USIDOC5 014217-1

11275-2500 US1

Replacement Page 12

PATENT

connection of the additional processor to the interface switch 304 eliminates the requirement for the adding of an address of the interface switch 304 which is required by the electronic mail systems to forward the information to the interface switch where necessary formatting of the information to be compatible with the RF information transmission system is performed. The interface switch 304 packetizes information originating from the additional processors 312 in the same manner as described above with respect to information originating from within an electronic mail system.

Information from within an electronic mail system and originating from additional processors 312 outside of the electronic mail system may be formatted into the same packets which are forwarded to the hub switch 116. Additionally, interface switch 304 may be connected only to the additional processors 312 to provide an interface only for processors outside of any electronic mail system to destination processors A-N within one or more electronic mail systems 1-N. The only information which is necessary to be inputted by the additional processors 312 is the address of the destination processor (user of the processor). The addition of the identification number

USIDOC95014817v1

110275-2500 US1

Replacement Page 13

PATENT

of the receiver 119 may be added by matching of an identification of the destination processor with stored destination processors within the additional processor 312, or the interface switch 304 with an identification number of the receiver 119 stored with an identification of a destination processor A-N used as an identification of the destination processor upon a match having been made.

Prior art FIGs. 1-3, however, do not generally relate to, for example, providing an integrated or combination real time and polled electronic messaging system, method and/or a computer readable medium storing computer-executable instructions for enabling e-mail messages and/or other data messages and/or services to be transmitted and/or received via a wireless communications device on either a real time and/or polled basis

In recent years, technological advance and consumer demand together have made wireless messaging and related services (e.g., eLinkSM provided by Motient Corporation, Reston, VA) increasingly popular. These services allow users

USIDOC8 201421741